

What is claimed is:

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1. For use in a cable television converter terminal, a passthrough circuit for passing a tuned signal from a tuner to a radio frequency modulator for output to external equipment, the passthrough circuit arrangement comprising:

a first signal path, arranged to receive the tuned signal from the tuner and to provide a NICAM signal component of the tuned signal to the radio frequency modulator; and

a second signal path, arranged to receive the tuned signal from the tuner and to provide at least one other signal component of the tuned signal to the radio frequency modulator.

2. A passthrough circuit, as claimed in claim 1, wherein the first signal path comprises a NICAM surface acoustic wave filter, coupled to receive the tuned signal from the tuner and configured and arranged to pass a NICAM signal component of the tuned signal and to substantially reject non-NICAM signal components of the tuned signal.

3. A passthrough circuit, as claimed in claim 2, wherein the NICAM surface acoustic wave filter outputs

3 a signal to a mixer which is set at a selected
4 frequency using a crystal oscillator.

1 4. A passthrough circuit, as claimed in claim 1,
2 wherein said first signal path comprises an alignment-
3 free filter coupled to receive the tuned signal from
4 the tuner and configured and arranged to pass a NICAM
5 signal component of the tuned signal and to
6 substantially reject non-NICAM signal components of the
7 tuned signal.

1 5. A passthrough circuit, as claimed in claim 2,
2 wherein the first signal path further comprises a
3 mixer, coupled to receive the NICAM signal component
4 passed by the NICAM surface acoustic wave filter, and
5 configured to downconvert the NICAM signal component to
6 a baseband NICAM IF frequency.

1 6. A passthrough circuit as claimed in claim 5,
2 wherein the NICAM IF frequency is one of 6.552 MHz and
3 5.85 MHz.

1 7. A passthrough circuit as claimed in claim 5,
2 wherein the first signal path further comprises a low
3 pass filter, coupled to receive the downconverted NICAM

20 video signal components to the radio frequency
21 modulator.

1 9. A passthrough circuit as claimed in claim 8,
2 wherein the second signal path further comprises an
3 operational amplifier arrangement, coupled between the
4 dual surface acoustic wave filter and the audio and
5 video amplifier, configured and arranged to further
6 amplify the amplified filtered signal.

1 10. A passthrough circuit as claimed in claim 1,
2 wherein the first signal path is constructed as a
3 unitary circuit module.

1 11. For use in a cable television converter
2 terminal, a passthrough circuit for passing a tuned
3 signal from a tuner to a radio frequency modulator for
4 output to external equipment, the passthrough circuit
5 arrangement comprising:

6 a NICAM surface acoustic wave filter, coupled
7 to receive the tuned signal from the tuner and
8 configured and arranged to pass a NICAM signal
9 component of the tuned signal and to substantially
10 reject non-NICAM signal components of the tuned signal;

4 signal component from the mixer and configured and
5 arranged to attenuate mixer harmonics from the
6 downconverted NICAM signal and to provide a NICAM
7 output signal to the radio frequency modulator.

1 *Suba17* 8. A passthrough circuit as claimed in claim 1,
2 wherein the second signal path comprises:
3 a channel surface acoustic wave filter,
4 arranged to receive the tuned signal from the tuner and
5 to filter the tuned signal to generate a filtered
6 signal;
7 an intermediate frequency strip, configured
8 and arranged to amplify the filtered signal;
9 a dual surface acoustic wave filter,
10 configured and arranged to separate the amplified
11 filtered signal into audio and video signal components;
12 an audio and video amplifier, operatively
13 coupled to the dual surface acoustic wave filter and
14 configured and arranged to amplify the audio and video
15 signal components; and
16 an audio/video demodulator, configured and
17 arranged to downconvert the amplified audio and video
18 signal components to their respective baseband
19 frequencies and to provide the downconverted audio and

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11 a mixer, coupled to receive the NICAM signal
12 component passed by the NICAM surface acoustic wave
13 filter, and configured to downconvert the NICAM signal
14 component to a baseband NICAM IF frequency; and
15 a low pass filter, coupled to receive the
16 downconverted NICAM signal component from the mixer and
17 configured and arranged to attenuate mixer harmonics
18 from the downconverted NICAM signal and to provide a
19 NICAM output signal to the radio frequency modulator.

1 12. A passthrough circuit as claimed in claim 11,
2 wherein the mixer is set at a selected frequency using
3 a crystal oscillator.

1 13. A passthrough circuit as claimed in claim 12,
2 wherein the selected frequency is one of 45.75 MHz and
3 38.9 MHz.

1 14. A passthrough circuit as claimed in claim 11,
2 wherein the baseband NICAM IF frequency is one of 6.552
3 MHz and 5.85 MHz.

1 15. A passthrough circuit as claimed in claim 11,
2 wherein the NICAM surface acoustic wave filter, mixer,

3 and low pass filter are constructed as a unitary
4 circuit module.

1 16. A signal processing circuit in which a first
2 component of a signal is separately processed, the
3 processing circuit comprising:

4 a first signal path connected between an input
5 terminal and an output terminal, said first signal path
6 including a first processing circuit for processing
7 said signal and providing a first processed signal to
8 said output terminal; and *a*

9 a second signal path connected between said
10 input and output terminals, said second signal path
11 comprising a alignment-free filter for passing
12 substantially only said first component of said signal
13 and a second processing circuit for processing said
14 first component of said signal and providing a second
15 processed signal to said output terminal.

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1 17. A circuit, as claimed in claim 16, wherein
2 said signal is an audiovisual signal and said first
3 component is a NICAM digital audio signal.

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